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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/825,745	04/16/2004	Hasso von Blucher	4080-49	8502
27799	7590	04/06/2006		
COHEN, PONTANI, LIEBERMAN & PAVANE 551 FIFTH AVENUE SUITE 1210 NEW YORK, NY 10176			EXAMINER LAWRENCE JR, FRANK M	
			ART UNIT 1724	PAPER NUMBER

DATE MAILED: 04/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/825,745	Applicant(s) VON BLUCHER ET AL.	
	Examiner Frank M. Lawrence	Art Unit 1724	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1) ☐ Responsive to communication(s) filed on \_\_\_\_.

2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4) ☒ Claim(s) 1-41 is/are pending in the application.

4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.

5) ☐ Claim(s) \_\_\_\_ is/are allowed.

6) ☒ Claim(s) 1-26, 28-32 and 36-41 is/are rejected.

7) ☒ Claim(s) 27 and 33-35 is/are objected to.

8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

9) ☒ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on 16 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) ☒ All    b) ☐ Some \* c) ☐ None of:

1. ☒ Certified copies of the priority documents have been received.

2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.

3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date ____	4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. ____ 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) 6) <input type="checkbox"/> Other: ____
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## DETAILED ACTION

### *Specification*

1. The disclosure is objected to because of the following informalities: In line 2 of claim 28, it appears that “to or” should be inserted after “impermeable”. In line 2 of claim 29, it appears that “to” should be inserted after “impermeable”.

Appropriate correction is required.

### *Claim Rejections - 35 USC § 102*

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-3, 9, 14, 18, 20-22, 26, 30 and 36-41 are rejected under 35 U.S.C. 102(b) as being anticipated by Simpson et al. (3,944,403).
4. Simpson et al. ‘403 teach a gas mask cannister comprising a glass fiber paper layer (2), a non-woven activated carbon fiber layer (3), a granular activated carbon layer (1), and perforated disk layers (4, 9) separating and supporting the carbon layers (see figure, col. 3, line 30 to col. 3, line 3).
5. Claims 1-3, 9, 14, 18, 20-22, 26, 28-30 and 36-41 are rejected under 35 U.S.C. 102(b) as being anticipated by Oda et al. (2002/0129711).
6. Oda et al. ‘711 teach an air filter for an engine, comprising two non-woven, heat resistant layers (26), a granular activated carbon layer (22), and two non-woven activated carbon fiber layers located between the heat resistant layers (see figure 1, paragraphs 21, 36-41, 48, 50). One

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of the carbon fiber layers anticipates the barrier layer that is capable of retarding the passage of chemical agents, liquids and aerosols.

7. Claims 1-3, 9, 14, 18, 20-22 and 36-41 are rejected under 35 U.S.C. 102(b) as being anticipated by the Japanese reference (JP 2003-102818 A).

8. JP '818 teaches a gas filter comprising several filters arranged in a zigzag manner, each including a layer of granular activated carbon (9), a fabric sheet of fibrous activated carbon (11) adjacent the granular layer, a porous mesh layer (12) adjacent the fibrous sheet, and a perforated box (10) for containing the granular activated carbon (see abstract, figures, paragraphs 10-14 in machine generated translation).

***Claim Rejections - 35 USC § 103***

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over either one of Simpson et al. '403 or Oda et al. '711 in view of Benson et al. (2003/0046656).

11. Either one of Simpson et al. '403 or Oda et al. '711 discloses all of the limitations of the claim except that one of the first and second layers is rendered oleophobic. Benson et al. '656 disclose a gas filter comprising a fiber layer that is treated to be oleophobic (abstract, paragraph 47). It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the outer fiber layer by including an oleophobic coating in order to improve resistance to the effects of heat, humidity, impact and mechanical stress.

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12. Claims 4-8, 10-13 and 23-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over either one of Oda et al. '711, Simpson et al. '403, or JP '818 in view of Jagtoyen et al. (2003/0089237).

13. Either one of Oda et al. '711, Simpson et al. '403, or JP '818 disclose all of the limitations of the claims except that that the granular and fibrous carbon have a preferred surface area, are produced by carbonization and activation of starting materials, have preferred dimensions and amount, and that the filter has a preferred weight and permeability. Jagtoyen et al. '237 disclose an activated carbon fiber and particulate filter comprising fibers that are produced by carbonization and activation of various starting materials to achieve a surface area of 500-3000 m<sup>2</sup>/g and a fiber diameter of 5-50 microns (paragraphs 26, 27, 52-54, 61-63, 71, 77). It would have been obvious to one having ordinary skill in the art at the time of the invention to manufacture the activated carbon particulate and fibers of either one of the primary references according to known methods, and to produce a preferred surface area, fiber diameter and titer in order to provide a desired level of air purification and pressure drop across the filter. Absent a proper showing of criticality or unexpected results, the ranges not disclosed in the prior art are considered to be parameters that would have been routinely optimized by one having ordinary skill in the art at the time of the invention in order to maximize adsorption efficiency at an acceptable cost.

14. Claims 31 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Simpson et al. '403.

15. Simpson et al. '403 disclose all of the limitations of the claims except that the barrier layer has a preferred thickness and is made of plastic or an organic polymer. Absent a proper

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showing of criticality or unexpected results, thickness of the perforated layers is considered to be parameter that would have been routinely optimized by one having ordinary skill in the art at the time of the invention in order to provide a support having sufficient strength and permeability. It is submitted that one skilled in the art would know to use plastic, metal, or another material that is resistant to corrosion.

16. Claims 15-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over either one of Oda et al. '711, Simpson et al. '403, or JP '818.

17. Either one of Oda et al. '711, Simpson et al. '403, or JP '818 discloses all of the limitations of the claims except that the activated carbon is impregnated with a metal catalyst in a preferred amount. Muraoka '738 discloses an air filter comprising activated carbon that has been impregnated by zinc chloride, an acid, or an alkaline material (col. 2, lines 38-56, col. 4, lines 24-45, col. 5, lines 22-44). It would have been obvious to one having ordinary skill in the art to modify the activated carbon of the primary references by using impregnation as disclosed in Muraoka '738 in order to provide a filter that is effective for removing specific, targeted contaminants from an air stream. The amount of impregnation is considered to be a parameter that would have been routinely optimized by one skilled in the art in order to achieve a desired level of adsorptive or reactive capacity.

***Allowable Subject Matter***

18. Claims 27 and 33-35 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Conclusion***

19. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The additional references listed on the attached PTO-892 form disclose filters containing activated carbon fibers.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Frank M. Lawrence whose telephone number is 571-272-1161. The examiner can normally be reached on Mon-Thurs 7:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duane Smith can be reached on 571-272-1166. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Frank M. Lawrence  
Primary Examiner  
Art Unit 1724

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*Frank Lawrence*  
3-23-06